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Thermocatalytic upgrading of heavy oil by iron oxides nanoparticles synthesized by oil-soluble precursors

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## ACCEPTED MANUSCRIPT

| 1  | Thermocatalytic upgrading of heavy oil by iron oxides nanoparticles  |
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| 2  | synthesized by oil-soluble precursors  |
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| 10 | Keywords.  |
| 11 | Thermocatalytic upgrading, heavy oil, viscosity, reservoir temperature and   |
| 12 | pressure, catalysis.   |
| 13 | Abstract.  |
| 14 | Thermocatalytic upgrading of heavy crude oil at reservoir temperature and  |
| 15 | pressure has been studied. The objective of the present work was to investigate the  |
| 16 | efficiency of the compounds based on iron (iron carbonyls, iron oxide, metallic  |
| 17 | iron) on thermocatalytic upgrading process of heavy crude oil at reservoir   |
| 18 | temperature and pressure (5.0 MPa and up to 523.15 K). The viscosity reducing  |
| 19 | was used as the main parameter for determination of the efficiency of  |

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